HANKS (H.T.)

A Study of the Pathological Conditions of the Pelvis which ought to be attacked from the Vagina.

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A STUDY OF THE PATHOLOGICAL CONDITIONS OF THE PELVIS WHICH OUGHT TO BE ATTACKED FROM THE VAGINA.*

BY HORACE TRACY HANKS, M. D., NEW YORK.

The technique of vaginal hysterectomy has been carefully perfected by French, German, and American gynæcological surgeons during the past few years. It is doubtful, therefore, if many decided improvements in method can, or will be introduced in the near future. Our ability to make a more exact diagnosis of certain diseases requiring this operation may possibly be improved. The operation is well done here in our own city by many of our gynæcological surgeons. And in almost all the large cities of the United States, as well as on the Continent of Europe, are found those who believe in the operation, who recommend its performance, and who do the work rapidly and successfully.

The questions which confront us as gynæcological surgeons to-day are not, Can a vaginal hysterectomy be successfully performed? nor Can pus tubes be successfully removed *per vaginam?* The former question has been practically answered for more than *ten* years by all of us who have practiced vaginal hysterectomy for carcinoma uteri. The latter question has been answered affirmatively many times during the past *two* years by a host of American surgeons. And during the last year Jacobs has demonstrated in our presence, in a masterly manner, how rapidly and successfully it can be done. The real question, therefore, is, *When* shall we do a vaginal hysterectomy, and in what class of cases?

* Read before the New York Obstetrical Society, April 7, 1896.

An effort to aid the younger men who may not have had as fair and full a chance as they could have desired before deciding upon the choice of operations, is my only excuse for preparing this paper. The violent opposition to the vaginal route, which has been manifested in certain cities in Europe and in the United States, has but made its advocates more careful in giving a reason for the faith that is in them. Had there not been good grounds for changing from the suprapubic to the vaginal route in certain cases, we here in the United States, would have avoided the lower and more difficult route, and we would most certainly have kept to our former suprapubic operation, which we all know so well how to perform.

There are a host of operators, both on the Continent of Europe and here in the United States, who can do as good abdominal surgery as they can ever hope to do vaginal surgery, who believe they are justified in changing, and have therefore changed their manner of operating from the upper to the lower route. In deciding on the character of a proposed operation, when one has to be performed, like deciding on the character of the anæsthetic to be used in major operations, the first consideration to weigh materially should be as to what is best for the patient, and not what is easiest for the surgeon, or what will be the most brilliant operation for the spectators to witness. With every conscientious surgeon it will be what is best for the patient. The question of selecting the operation to be performed for certain pelvic diseases ought never to be determined until the surgeon, after a careful study of many cases from his own experience and that of his friends, is willing to decide solely in the interest of his patient. To illustrate:

Dr. A. has removed successfully thirty simple unilocular ovarian tumors or thirty catarrhal tubes without a single death, while Dr. B. has removed, *per vaginam*, thirty small cancerous or fibroid uteri with no deaths. Shall Dr. A.'s conclusion that all pelvic diseases be operated upon from above, simply because his cases have done well, be accepted? or shall Dr. B.'s testimony be considered infallible, when he states that since he has performed thirty vaginal operations with no deaths, therefore all operations should be done from below? Such reasoning is far from satisfactory to a judicious mind. The real question still comes up daily to the best of operators, "Which is best for this particular patient?"

It makes but little difference which route you select in these simple, uncomplicated cases like Dr. A.'s and Dr. B.'s; either route will do if you are a good all-round surgeon. But when the bad cases

have to be considered—those which have troubled us most in operating from above, those cases of which, if we have them in large numbers, the best surgeons would expect a death-rate of five per cent when we operate from above, even when we operate in our very best manner, and our patients are in good condition and are to be well nursed, with the most satisfactory surroundings—here we must decide if the lower route will give the patient the better chance.

For example, during the last two years in the Woman's Hospital, the only two women who have died after I had operated on them suprapubically, strictly for diseased tubes and ovaries, were cases in which the adhesions were so firm about the rectum and in Douglas' pouch that the bowel was injured in both cases, and a portion of the necrotic gut of one case had to be resected. In this case there was so much disease in the uterus that I removed it also, and therefore I had free drainage. But this patient died of sepsis and shock. The other one was drained through Douglas' pouch without doing a hysterectomy. She died, not from shock, but from sepsis. Both of these cases are of a type which we are all compelled to meet and to operate upon daily. And for such cases we must decide what manner of operation will give them the best chances of recovery and future health.

It is possible, of course, and often consistent, for us to change the route we have decided upon at the request of the patient, as we know that many women really object to having a cicatrix above the pubes, and many of them know that a hernia, after an operation of this kind, is not an uncommon occurrence.

There is little necessity of considering the propriety of doing a vaginal operation when we know that we are capable of doing a quick and successful operation from above—as quick and as successful and as free from future complications as may be possible. Let us therefore consider at this time some of the important advantages of the vaginal operation :

1. There ought to be less shock (and such is the case), as the abdomen and its contents are far less exposed.

2. There ought to be better drainage, since there will be a normal outlet.

3. There ought to be no hernia. (There should be no hernia when operating from above if the surgeon follows the rules which good surgeons recognize to-day.)

4. There will be no scar to annoy the eye of the æsthetic subject, or to develop an ugly, painful keloid.

5. The cases which ought *always* to be attacked from the vagina can be done as quickly as from above by a good operator.

6. The bad cases, the really feeble women, can be relieved quickly by opening freely through Douglas' pouch and by irrigating and packing, when the patient could never survive a complete suprapubic operation. We were taught to do this operation by our teachers here in New York long before vaginal or suprapubic hysterectomy had become popularized.

7. There ought to be a shorter convalescence.

8. The peritonæum not being opened, there is less danger of injury to the bowels.

There are, of course, certain advantages for the suprapubic route; these advantages are acknowledged by the wise surgeon who works most frequently from below. And no surgeon can afford to ignore these advantages.

1. The eye can see and the hand can touch the disease more easily, and consequently it is possible to make a more complete and finished operation.

2. There is less decidedly hard labor in operating.

3. There is less danger of wounding the bladder.

4. The hæmorrhage is less dangerous, or it is more easily controlled, until one becomes *au fait* in vaginal operations.

The fact that a few operators, like Tait, or Jacobs, or Martin, or Bantock, or many of our best men, can do a certain operation which they have studied and perfected until they are really stars in this specialty, as much so as Patti and Kellogg ever were in the musical world—the fact that these surgeons do their work so successfully in their own particular manner is no argument necessarily why we should all believe that there is no other good way for a surgeon to do these particular operations. This fact is patent to most of us, however—viz., real surgical skill is required in doing a vaginal operation. Many a man has done a cœliotomy successfully simply because he has done just what his teacher has taught him to do. In other words, he is a successful imitator, not necessarily a good surgeon. A man who is to do successful pelvic work through the vagina must first perfect himself as a surgeon. And therefore he must operate on the cadaver if he would succeed in his first attempts on the living subject. The exact location of the ureters, the uterine arteries, the ovarian arteries, and the tubes can not be learned from illustrations in text-books, however elaborate, nor from simply watching the most dexterous operator. He only will be a safe operator who first perfects himself in the man-

ner above described. But, given a good surgeon, and one well qualified to operate from above or below, when should we choose the vaginal route?

There should be and there are certain patients with certain conditions who really ought to have an operation by the lower route, because we have found that these patients are more likely to survive, and finally to recover their former health with this operation. This reason is all-important, and the ever-present one.

The *first* class of cases are the difficult tube and ovary cases. They are the *bête noire* to me and to many of my most intimate friends in this department of work. We have all lost many cases, and we only save them now by the most careful surgical work. And without drainage a large percentage will die to-day. Now I am convinced, from my own experience in vaginal work, that we can save a larger number of this type of cases when we operate from below, and we give the patient a far better chance of quickly regaining perfect health. If a surgeon can do thirty cases of vaginal hysterectomy without a death, it is a good argument in favor of the operation. There are some here in New York who can do and have done this. I, myself, have lost but one in my first thirty cases, and they were not selected cases by any means. Several of them in my own practice, in fact, have been of this very type of suppurative pelvic disease, when the true pelvis was packed with the natural organs plus the exudate.

And thus I come to say that, after trying both methods of work—the suprapubic for over fifteen years and the vaginal for this class of pelvic disease for a little less than two years—I am prepared to recommend the latter route. There is, as we all know, in these very same pus-tube cases an absolute necessity for drainage. If we drain from above, it must be by glass tube or the Mikulicz gauze. And even with the greatest precision of operation, there has often been left a sinus into the abdomen. At the bottom of this sinus is often found a septic ligature. Possibly a more serious complication has resulted in the shape of a most annoying and repulsive fæcal fistula, and later still a ventral hernia. Thus with the very best surgeons there is always an element of danger in such cases over and above the immediate great danger from shock and sepsis. For myself, having recognized the gravity of this suprapubic operation when much enucleation is required to shell out the pus tubes about the rectum, I have for three years drained every case, which seemed to require drainage, through the bottom of Douglas' pouch into the vagina. My

cases have done better, and I have simply learned a lesson from Mother Nature, when she empties a pus tube through the uterus into the vagina, and quite as safely, thoroughly, and successfully empties a pelvic abscess directly into the vagina.

But when doing this modified suprapubic operation I did not fully grasp the grand idea which has been forced upon our notice during the last two years, since we have used the more perfect Jacobs retractors and have had more enthusiastic advocates. My experience in operating for grave pelvic diseases from above, and my success in draining through the vagina, made me an early convert to the vaginal method of operating in these diseases. I am certain now that many of my fatal cases in my earlier work would have resulted differently had I then been able to do the work as carefully from below as I did from above. The method of operation which will allow of the removal of the tubes and ovaries with the least injury to the rectum and ureters, and with the least shock, is the best. It is not a question of making the nicest surgical operation, the most surgically surgical operation, but it is a question of curing the greatest number of women by the least dangerous operation.

The fact has long been taught by Sims, Emmet, and Thomas, that a free opening from the vagina into a pus sac under the broad ligament has resulted in a complete cure to the patient, even though much if not all of the pyogenic membrane was allowed to remain. It is only necessary to remove the pus and whatever can safely be removed through the very free incision into Douglas' pouch, or under the broad ligament. The uterus should not be removed if the patient's weak condition will not allow it. But there should be a generous packing of iodoform gauze in the cavity after thorough irrigation. Nature soon forces all diseased septic tissue toward the proximate end of the sinus, and the exudation above and around the rectum is soon absorbed. The general condition of the patient is at once improved. As stated above, if she is exceedingly feeble only the pus sac need be opened at the first sitting. Later a complete hysterectomy can be performed.

My results from this operation, even though all the pyogenic membrane is not removed, have been most satisfactory. Nature helps more kindly and surely in ridding herself of septic matter than she does in the suprapubic operations, since drainage is free through the vagina.

To decide upon the gross condition in this class of pelvic diseases, the wise surgeon will always examine the parts most carefully while

the patient is under full ether narcosis, and I desire here and now to urge upon the younger surgeons, the great importance of an anæsthetic in such cases. Give ether and examine most thoroughly in the vagina and rectum, by palpation, conjoined palpation and percussion, with legs flexed and feet raised. And when the objective and subjective symptoms point to a pus disease involving tubes and ovaries, and closely adherent to the rectum, and when all the diseased tissue is in the true pelvis, we ought to operate from below. I believe in always removing the uterus with the diseased tubes and ovaries, when they are all more or less diseased and the patient's strength will allow. The argument for removing the uterus at this time is that its normal function is destroyed, and it is but little better than a foreign body. It certainly is quite likely to be a degenerative process. Occasionally—at least three times in my own experience—after the tubes and ovaries have been removed, the uterus became cancerous. In several other of my patients there has been decided endometritis, which required curettement. When operating from below for the pus cases, great caution must be taken to avoid injury to the rectum. We must judge by the character of the tissue and the location when we are approaching the rectum, and when near we must cease our enucleation, possibly before fully completing it, pack the cavity with gauze, and expect the patient to improve and recover. Such a careful operation does not injure the rectum. This has been proved time and again of late by others as well as myself.

To illustrate: On the 1st of January, in the Woman's Hospital, I had a patient, Mrs. S., suffering from pelvic disease. The true pelvis was filled with the pus tubes, uterus, rectum, and exudate. The uterus was firmly fixed in this exudate. She was constantly carrying a temperature of 101° to 104°. She had the regular exacerbations and remissions of fever which pointed to imperfect emptying of a pus sac. The husband and the patient had refused an operation up to January 21st, when they consented. On January 22d I did a vaginal operation, removing the uterus and left tube with some difficulty. The other side, far more dense, was not completely enucleated, as the patient had been very feeble for more than six weeks, and I did not dare to complete the operation as perfectly as I would have liked. Thorough irrigation and packing was practiced, the patient was better at once and has steadily improved, and now at date of this writing—January 28th, six days after the operation—she is out of danger, although there is much vaginal discharge. (At date of reading, I add that she was discharged from the hospital quite well; I have seen her

several times since, and the cure seems to be complete. Many other similar cases could be given if time would allow.)

Those of us who have tried both methods of operation for this condition believe the later method to be quicker and far safer.

The second class of cases which should be operated upon from the vagina are ovarian abscesses.

The opening through the posterior fornix is less dangerous, the abscess is reached more quickly, and the pus need never enter the abdominal cavity. The scissors, the finger, the curette, the irrigation, and the packing complete the work, and the cure follows. The diagnosis of these ovarian abscesses is not generally difficult. I have no additional rules to suggest that we may be absolutely certain that there is an ovarian abscess. But the fever for days, the tenderness in the ovarian region, the shape of the tumefaction, the marked though deep fluctuation in this locality, all point to the presence of pus. The rectal touch under ether narcosis, the palpation with the feet raised and thighs flexed, and with the uterus drawn downward, if need be, with volsella, convince us of the presence of pus, and we are often very sure that it is in the ovary. One patient has entered the Woman's Hospital within the last month with all these symptoms. The uterus was diseased, and an hysterectomy was done at the same time. She was discharged cured in exactly three weeks after the operation.

We all know how easily we have aspirated through the vagina these pus sacs in former days. It is almost as easy, and a far safer operation, to make a free incision, to irrigate and pack the sac. Nature comes to our aid here too. And even though all pyogenic membrane is not removed, the patient will be cured with proper care. The sinus must be kept open for a time when the pus sac will be entirely collapsed. Generally the tube also on this same side can be easily removed. Altogether we were never quite satisfied with some of our suprapubic operations for ovarian abscess. It was one of this class of cases in 1891 which gave me the inspiration to drain from the lowest point of the abscess cavity into the vagina.* The ovary had become a typical ovarian abscess. It had rolled over under the edge of the broad ligament, and the abscess had developed in that position. The uterus, tubes, and this ovary had completely filled the true pelvis. After cutting through the abdominal wall I came down at once upon the bulging broad ligament. A slit through the broad ligament re-

* See paper in *Post-graduate*, No. 4, 1893, Counter-drainage after Cœliotomy.

vealed the thin white wall of the sac. With an aspirating needle the pus was quickly removed, and with the same aspirator the cavity thoroughly disinfected with antiseptic fluid. Then the abscess was opened with a bistoury, and a sharp-pointed pair of scissors was pushed directly downward into the vagina. Gauze was passed through this sinus into the vagina. The abscess cavity was loosely packed with the proximal end of this same strip of gauze. The slit in the upper portion of the abscess and broad ligament was closed with catgut suture. The result was most satisfactory, excepting that I had to enlarge the opening from the vagina into the abscess cavity later, in order to allow freer drainage.

The third class of cases would be unruptured tubal pregnancy and tubal pregnancy, when the rupture has been downward into the broad ligament and when *no violent* hæmorrhage is going on. Many of these latter patients slowly recover without an operation. We have all seen these cases, however, where slow hæmorrhage is going on and we have operated from above, and we have saved nearly all our patients. Still, if the operation is required at all, it is far easier to operate from the vagina. A free opening should be made through the posterior fornix and all blood clots quickly removed. The cavity should then be thoroughly irrigated, and with the two large retractors *in situ*, the patient being in a proper position, and with a good light, the bleeding artery should be seized with a delicate Tait forceps. All hæmorrhage is thus controlled at once. After irrigation the cavity is packed with gauze, while the pressure forceps remain *in situ*. The work can often be completed inside of twenty minutes. The patient will soon recover unless a very alarming hæmorrhage has occurred before or during the operation. Only with a good light and good retractors and good assistants should one undertake the operation however.

The fourth class of cases would be small ovarian and parovarian, movable cysts, and diseased, movable tubes and ovaries. The suprapubic operation for this class of cases will always be resorted to, and successfully, by some good abdominal surgeons. Yet I firmly believe, from having done the vaginal operation for many small parovarian and three small ovarian cysts, that the vaginal route is always the better route for the all-round surgeon. It is easily done; it is quickly done; and there should never be any subsequent trouble. The uterus can be pushed up and kept in normal position by the gauze packing, which is a decided advantage in retroversion cases.

The fifth class of cases would be movable uteri with small fibroid

tumors, when in the true pelvis, and which seem to be the source of endless neuralgia, as well as worry and anxiety. When a hysterectomy is justified at all in these cases, we are justified in doing it *per vaginam*. To-day we know that there may be serious results following from a growing fibroid, over and above the dread and discomfort of having to carry about a large tumor. It is an indisputable clinical fact that it may cause more or less neuralgia, varying according to the site of the tumor. The tumor also causes frequent attacks of vertigo. These known clinical reasons, and the loss of faith in electricity or ergot, have led us to look to surgical aid in these cases, and we do not look in vain. We find that small tumors can be removed with the entire uterus *per vaginam* safely. It is a more severe operation for the patient when done from above, and this is the most weighty argument for taking the vaginal route.

The sixth class of cases which I believe we are justified in attacking from the vagina is the class which we have all for ten years been in the habit of treating *per vaginam*. I refer to the malignant diseases of the uterus. I would recommend that the uterus be removed *per vaginam* in every case where it ought to be removed at all if the vagina is not too small, and if there is no extension of the disease from the fundus uteri. We are, however, justified in removing the uterus, tubes, and ovaries from above when the disease has gone beyond the uterus and has invaded the adjacent structures in the pelvis. It is perhaps possible for the expert to do this work well in the vagina; but we ought to know that all the tissue which has become involved in the cancerous disease has been removed, whenever we do a major operation. We must therefore work from above, where thorough and careful inspection can be made at every step, and when, if need be, and as has been done by a member of this Society, all of the broad ligament has been dissected out.

Of course the rules which I have here formulated for the classification of cases do not cover all pathological conditions which may justify the vaginal operation, but they indicate the method of procedure in the conditions which have come under my own personal observation, in which I feel convinced that we ought to take the vaginal route. In certain other conditions, like the unruptured tubal pregnancy, like the small parovarian cyst, like the small pedunculated subperitoneal fibroid, the choice of operation may be made on other than purely surgical grounds, since no deaths ought ever to occur whichever route is selected. But even in these simple cases he who works from below well and easily will undoubtedly give his patients a

shorter convalescence and avoid accidents and blemishes which so often occur after the other operation.

I must not close, however, without giving my reasons for *avoiding* the vaginal route in certain tumors. For example, large fibroids and other solid tumors may possibly have dislocated the bladder or become adherent to the peritonæum in front, and possibly adherent, as we know is often the case, to some loop or loops of the large or small intestines. Such tumors should most certainly be attacked from above, because of these possible adhesions, and because the operation must of necessity be twice as long if done *per vaginam.* Nothing but the æsthetic fancy of the patient and her friends should ever make us waver from the abdominal operation in such cases.

And so, too, avoid the vaginal route in smaller fibroids which have at least an antero-posterior diameter of fully eleven centimetres (4½ inches); and especially if there has been considerable perimetritis, since the uterus and tumor will in that case be quite firmly held at the brim of the pelvis. In such case the surgeon who works *per vaginam* works at great disadvantage, because of the absolute labor incident to the *morcellement* of so large and hard a tumor located so far from the ostium vaginæ. It is really as tedious to the surgeon as it is dangerous to the patient.

In ruptured tubal pregnancy, when much blood has escaped into the abdominal cavity, always operate from above.

In large ovarian tumors, where there are possible adhesions to the intestines and peritonæum, far from the vagina, and where possibly there may be other and even more dangerous and unexpected complications, the operation should be done from above.

A simple unilocular ovarian cyst can surely and safely, and possibly more quickly, be removed from above by a good operator than even the best surgeon can do it *per vaginam.* But in such cases we must elect the route after careful examination, and the choice must be made in the interest of the patient.

To recapitulate: If you are a well-equipped surgeon—

Do a vaginal operation—a vaginal hysterectomy, in fact—when practicable:

1. For a suppurative pelvic disease, if located in the true pelvis, when exudation covers and agglutinates the uterus, tubes, ovaries, and rectum.

2. For an ovarian abscesses.

3. For an unruptured tubal pregnancy, and for a ruptured tubal pregnancy in the broad ligament.

4. For a small ovarian and parovarian, movable cysts, and other small movable tumors.

5. For movable uteri, with small fibroids.

6. For carcinoma uteri when the uterus only is involved.